

01/30/2007

## TERMS OF REFERENCE

### INTERDEPARTMENTAL COMMITTEE FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH (ICMSSR)

#### COMMITTEE FOR INTEGRATED OBSERVING SYSTEMS (CIOS)

#### **WORKING GROUP FOR MULTIFUNCTION PHASED ARRAY RADAR (WG/MPAR)**

##### 1. REFERENCES

- a. *Federal Research and Development Needs and Priorities for Phased Array Radar*, OFCM, June 2006.
- b. Federal Committee for Meteorological Services and Supporting Research (FCMSSR) Meeting, October 18, 2002.
- c. Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) Meeting, November 16, 2004.
- d. Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) Meeting, July 18, 2006.
- e. Additional Reference documents can be viewed and/or downloaded from the OFCM Phased Array Radar Project web site: <http://www.ofcm.gov/wg-mpar/index.htm>

##### 2. BACKGROUND

In 2002, the Federal Committee for Meteorological Services and Supporting Research (FCMSSR) directed the Federal Coordinator for Meteorological Services and Supporting Research to (a) determine the specific needs of federal agencies that could be met by surveillance radar, (b) show the benefits of phased array radar capability in meeting these needs, and (c) explore opportunities for expanded participation in the Phased Array Weather Radar Project (FCMSSR Action Item 2002-4.1). Initial work on these tasks led to the formation in late 2004 of the Joint Action Group for Phased Array Weather Radar Project. ICMSSR Action Item 2004-2.3 also supported the joint action group's "continued work to identify and document the potential needs and benefits that phased array radar and an adaptive radar sensing strategy would address, and to integrate those identified needs into a multiagency-coordinated R&D plan that would focus R&D efforts on meeting each agency's need." When this group established the feasibility that a single phased array radar unit could perform both the aircraft surveillance and weather surveillance functions, it was renamed the Joint Action Group for Phased Array Radar Project (JAG/PARP). The report, *Federal Research and Development Needs and Priorities for Phased Array Radar*, presents the detailed response from the JAG/PARP to the original FCMSSR action

item and to the ICMSSR support of its work. The report was presented to ICMSSR at its July 18, 2006, meeting, and ICMSSR concurred with the establishment of an interagency working group within the OFCM infrastructure with a defined charter to develop a strategy to address the key findings and recommended next steps contained in the MPAR report, and agency comments from the ICMSSR meeting (ICMSSR Action Item 2006-1.1). WG/MPAR would be established under the Committee for Integrated Observing Systems (CIOS). The actions the WG/MPAR will be addressing are detailed in the Purpose section below.

### 3. PURPOSE

The WG/MPAR shall be the principal agent within the OFCM coordinating structure for developing a risk-reduction implementation strategy to address the key findings and recommended next steps contained in the report, *Federal Research and Development Needs and Priorities for Phased Array Radar* (June 2006), and agency comments from the July 18, 2006, ICMSSR meeting. This establishes the interagency partnership to plan and guide the MPAR risk-reduction program and follow-on acquisition. The focus is on a national multifunctional system to be deployed in the 2014 – 2022 timeframe. The WG/MPAR is to be a transitional body to manage risk-reduction research and development until such time as a permanent MPAR Joint Program Office can be established amongst the participating agencies. Specifically, the items the WG/MPAR should address include, but are not limited to:

- a. A detailed analysis of the life expectancy of existing legacy radars (i.e., WSR-88D; TDWR; ARSR-1, 2, 3, and 4; ASR-9; ASR-11—Table 3-1 of report) and the critical programmatic replacement decision timeframes for each type of legacy radar. This analysis should be compared to the timelines of the MPAR risk-reduction R&D program schedule (Figure 6-2 and Appendix D of report), with the goal of optimizing the MPAR risk-reduction strategies with the critical programmatic replacement decision timeframes.
- b. Performance of a cost-benefit analysis to establish MPAR's cost effectiveness against alternative domestic radar options, considering both acquisition and total life-cycle costs.
- c. Further defining mission requirements, the initial operational system requirements, specifications and functional configuration, estimation of costs, preparation of documentation to support agency programmatic and budgetary processes, acquisition strategy, and timelines to program funds for both the risk-reduction and follow-on acquisition.
- d. Agency representatives working within their respective agencies to obtain resources to achieve the priorities of the risk-reduction program and working to achieve an affordable MPAR system.
- e. Development of metrics to objectively assess the annual progress of the MPAR risk-reduction R&D program. Validate and quantify operational impacts and benefits.

- f. Publication of an annual statement of next-year research priorities and objectives and previous-year accomplishments. Conduct a periodic review of research results.
- g. Coordination of education and outreach efforts to build understanding of MPAR within the scientific community and the general public. This may include, for example, newsletters, status reports, media advisories, professional papers, workshops, and symposiums.
- h. Exploration of organizational infrastructures to support and manage the MPAR risk-reduction R&D program and follow-on efforts, including establishing a program council and a joint multiagency center for risk-reduction and follow-on acquisition.

#### 4. MEMBERSHIP

- a. Membership will be drawn from all Federal agencies that are MPAR stakeholders; each agency will be invited to provide a primary and alternate member. The WG/MPAR will be augmented as needed by non-Federal personnel to provide subject-matter or other expertise. WG/MPAR membership will be approved by the Federal Coordinator.
- b. Cochairpersons will be selected by the Federal Coordinator.
- c. The Federal Coordinator will provide the Executive Secretariat.

#### 5. PROCEDURES

- a. Meetings shall be called by the Cochairpersons and shall normally be convened in facilities provided by the Federal Coordinator. A final agenda item for each meeting will be to establish a tentative date for the next meeting. Dates and agenda will normally be finalized 2 weeks prior to meetings. The WG/MPAR will convene at a minimum of twice per year.
- b. WG/MPAR decisions will be by unanimous agreement of all members whose agencies are stakeholders in the decision. Members may abstain from voting without prejudice to the decisions of the WG/MPAR. Members may reserve their position pending agency clearance or instructions. Decisions may be reached in formal session or through correspondence (including e-mail) circulated to the members by the Cochairpersons or the Executive Secretary (on the Cochairpersons' behalf).
- c. If all members whose agencies are stakeholders in the decision are unable to reach agreement, the Cochairpersons will report the matter, with full documentation, to the Committee for Integrated Observing Systems (CIOS).
- d. Action items will be reviewed and agreed upon at each meeting. The Executive Secretary will send the draft action items to the WG/MPAR members to review and comment within five working days after a meeting. The Executive Secretary will document the action items along with other major decisions in a brief, informal Record of

Actions (ROA) within 15 working days after a meeting. This record, which may be distributed by e-mail, may also include copies of presentations and other important documentation.

e. Amendments to these Terms of Reference (TOR) will be approved by the CIOS.

6. REPORTS AND RECORDS

a. The WG/MPAR shall prepare reports and publications identified in this TOR and others as requested by CIOS.

b. Records of the WG/MPAR shall be maintained at OFCM.

7. TERMINATION

The WG/MPAR shall exist until terminated by ICMSSR.

James B. Harrison  
Executive Secretary, ICMSSR

1/30/07  
(Date)